

Nutrition Accuracy in Popular Magazines

(January 2000-December 2002)

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Table of Contents

The Survey: Methodology and Rating Criteria	6
Magazines Rated GOOD (89–80%)	10
Parents (tied for #1 in our survey)	10
Ladies' Home Journal (tied for #1)	11
Cooking Light (#3)	11
Better Homes and Gardens (tied for #4)	12
Health (tied for #4)	13
Good Housekeeping (tied for #6)	13
Consumer Reports (tied for #6)	14
Runner's World (#8)	15
Redbook (tied for #9)	15
Reader's Digest (tied for #9)	16
Prevention (tied for #11)	16
Woman's Day (tied for #11)	17
Fitness (tied for #13)	18
Glamour (tied for #13)	19
Self (tied for #15)	19
Shape (tied for #15)	20
Magazines Rated FAIR (79–70%)	21
Cosmopolitan (#17)	21
Men's Health (#18)	21
Magazines Rated POOR (69% or lower)	22
Men's Fitness (tied for #19)	22
Muscle and Fitness (tied for #19)	23
How the Magazines Stacked Up by Target Audience	24
ACSH's Conclusions — and Our Advice to Magazine Readers	26
References	29

Tables

Table 1. Ranking of Evaluated Magazines	8
Table 2. Ranking of Magazines by Overall Mean Ratings and Subcategory Ratings	9
Table 3. General Comments	25

Magazines are second only to television as an important source of nutrition information for the American public, according to a national survey conducted in 2002 by the American Dietetic Association.¹ In that survey, 58% of respondents identified magazines as one of their primary sources of information about nutrition — a substantial increase from the 50% who mentioned magazines in a similar survey conducted two years earlier.

How good is the nutrition information presented in popular magazines? To answer that question, the American Council on Science and Health (ACSH) has been tracking nutrition reporting in magazines for 20 years. Over that period as a whole, ACSH has found that the quality of the reporting has improved, reflecting most magazines' growing commitment to educating their readers. In this, the ninth *Nutrition Accuracy in Popular Magazines* survey, ACSH found that four-fifths (16 of 20) of the magazines included in the survey were GOOD sources of nutrition information; only one-fifth scored in the FAIR or POOR range. The proportion of FAIR or POOR scores was smaller than in any of the previous ACSH surveys that used the same rating criteria.* Magazines aimed at male readers were especially likely to score in the FAIR or POOR range. One unusual feature of the current survey was that no magazine scored in the EXCELLENT range; this is the first time that this has happened since ACSH adopted its current magazine-rating methodology for the 1990–92 survey.

The results of the current survey indicate the following:

- 1) Most of today's consumer magazines are providing their readers with scientifically sound articles about nutrition.
- 2) Nevertheless, there is still room for improvement, even in magazines that have long been known for the high quality of their reporting on nutrition issues.
- 3) Readers should interpret the recommendations given in magazines aimed at male readers with particular caution.

* ACSH has used consistent methodology in its evaluations of articles published in 1990–92, 1992–94, 1995–96, 1997–99, and 2000–02. Thus, the results of the current (2000–02) survey can be directly compared to those of the four preceding surveys but not to those of the surveys conducted in the 1980s, which used different methodology.

THE SURVEY: METHODOLOGY AND RATING CRITERIA

For this survey, as for the previous surveys in this series, ACSH identified 20 top-circulating U.S. magazines that regularly publish articles on nutrition topics. We made an effort to include magazines with different target audiences in order to sample articles aimed at a variety of readers. We dropped one magazine included in our previous surveys, *Mademoiselle*, because it had ceased publication. *Men's Fitness* was added in its place.

For each magazine, we identified all nutrition articles of at least one-half page in length published between January 2000 and December 2002, inclusive. If more than 10 appropriate articles were available, we selected 10 of the articles at random, using a random number generator. To minimize judging bias, we electronically scanned the articles and reformatted them to eliminate identifying features such as magazine titles and author names. This method of blinding cannot be counted upon to obscure the origins of all articles, however. For example, some articles from *Runner's World* and *Muscle and Fitness* might be identifiable because they refer to running or bodybuilding, respectively, and some *Consumer Reports* articles might be identifiable because of their unique product ratings.

Four experts in nutrition and food science independently judged the quality of each of the 200 magazine articles in the following three areas:

- Factual accuracy (Was the information in the article scientifically sound? Did the article document the sources of the information?)
- Presentation (Was the article objective? Was the headline consistent with the content? Were the conclusions logical?)
- Recommendations (Did the article make practical recommendations? Were the recommendations supported by information in the article? Were they based on accepted nutritional practices?)

For each of eight separate points, the judges were asked to indicate whether they “strongly agreed,” “somewhat agreed,” were “neutral,” “somewhat disagreed,” or “strongly disagreed” with the statement. These responses corresponded to numeric values ranging from a high score of five to a low of one. A composite score was determined for each article based on the judges' evaluations, and the composite scores for each magazine were determined by averaging the scores for all articles in that magazine. The study statistician, Dr. Jerome Lee, then tabu-

lated the results to determine each magazine's ranking. The highest possible score was 100%. Categories were assigned as follows: EXCELLENT (100–90%), GOOD (89–80%), FAIR (79–70%), POOR (below 70%).

The reaction of the judges to the articles that they reviewed was generally favorable. Judge Manfred Kroger said that he was “pleasantly surprised at the high quality” of the articles and noted that there were “very, very few items that raised my ire or indignation.” Judge F.J. Francis noted both that the articles were of generally good quality and that “some of the reports were written in an amusing and entertaining way while still preserving the accuracy. I think that's a plus.”

Survey results are presented in Table 1. Because the rating criteria and methodology of the current survey are the same as those used in four previous surveys (covering 1990–92, 1992–94, 1995–96, and 1997–99, respectively), the new results can be directly compared with the older findings.² Two points stand out in such a comparison. First, the number of magazines that scored less than 80% was smaller in the current survey than in any of the previous surveys. Second, the current survey was the first one in which no magazine scored in the EXCELLENT (100–90%) range. Thus, the results of the current survey indicate that more magazines than ever before are providing their readings with scientifically sound, responsibly reported information about nutrition. Nevertheless, the coverage of nutrition in popular magazines could be further improved.

In the discussions that follow, we note those instances in which the difference between a magazine's score in the current survey and that in the 1997–99 survey were “statistically significant.” Statistical significance indicates that the change is unlikely to have occurred by chance alone; it very likely reflects a real difference in the quality of the articles published during the two time periods. Eight of the 19 magazines that were included in both surveys had statistically significant changes in their scores; four (*Ladies' Home Journal*, *Redbook*, *Prevention*, and *Fitness*) improved significantly, while four others (*Self*, *Shape*, *Men's Health*, and *Muscle and Fitness*) earned significantly lower scores in the current survey than in the preceding one.

Our statistician also analyzed the current ratings to determine whether the differences among various magazines were statistically significant, both in terms of their overall scores and for each of the three subcategories (accuracy, presentation, and recommendations). The findings are summarized in Table 2. In general, the top five to seven magazines in the overall ratings and in each subcategory were significantly better than one or more of the three lowest-rated magazines, all of which were magazines aimed at male readers. On the other hand, differ-

Table 1. RANKING OF EVALUATED MAGAZINES

Magazine (listed by target audience group)	Circulation (in millions)*	1997-1999 survey score (percent)	2000-2002 survey score (percent)	Group score (percent)
<i>Home</i>				87
Cooking Light	1.4	90	88	
Better Homes and Gardens	7.6	83	87	
Good Housekeeping	4.5	90	86	
<i>Consumer</i>				86
Parents	2.0	91	89	
Consumer Reports	4.0	89	86	
Reader's Digest	12.6	83	83	
<i>Women</i>				82
Ladies' Home Journal	4.2	80	89	
Redbook	2.3	78	83	
Woman's Day	4.1	84	82	
Glamour	2.2	84	81	
Self	1.2	87	80	
Cosmopolitan	2.7	79	78	
<i>Health</i>				78
Health	1.4	84	87	
Runner's World	0.5	82	85	
Prevention	3.0	72	82	
Shape	1.5	86	80	
Fitness	1.1	78	81	
Men's Health	1.6	82	71	
Men's Fitness	0.6	NA	68	
Muscle and Fitness	0.5	73	68	

* Data for most magazines are derived from AdAge.com and are for the six-month period ended June 30, 2000. However, the circulation figures for Parents and Fitness are for the six-month period ended December 31, 2000, and the figure for Consumer Reports was provided by Consumers Union, publisher of the magazine.

Table 2. RANKING OF MAGAZINES BY OVERALL MEAN RATINGS AND SUBCATEGORY RATINGS

Rank ^a	Overall	Accuracy	Presentation	Recommendations
1	Parents ^b	Cooking Light ^d	Good Housekeeping ^e	Parents ^g
2	Ladies' Home Journal ^b	Health ^c	Ladies' Home Journal ^e	Ladies' Home Journal ^g
3	Cooking Light ^b	Parents ^c	Parents ^f	Runner's World ^c
4	Better Homes and Gardens ^b	Better Homes and Gardens ^c	Consumer Reports ^f	Better Homes and Gardens ^c
5	Health ^c	Ladies' Home Journal ^c	Health ^f	Cooking Light ^c
6	Good Housekeeping ^c	Consumer Reports ^c	Better Homes and Gardens ^f	Health
7	Consumer Reports ^c	Good Housekeeping	Cooking Light ^f	Good Housekeeping
8	Runner's World	Reader's Digest	Redbook	Consumer Reports
9	Redbook	Redbook	Runner's World	Prevention
10	Reader's Digest	Runner's World	Reader's Digest	Reader's Digest
11	Prevention	Fitness	Woman's Day	Redbook
12	Woman's Day	Shape	Prevention	Fitness
13	Fitness	Glamour	Glamour	Self
14	Glamour	Woman's Day	Fitness	Woman's Day
15	Self	Prevention	Cosmopolitan	Glamour
16	Shape	Self	Shape	Shape
17	Cosmopolitan	Cosmopolitan	Self	Cosmopolitan
18	Men's Health	Men's Health	Muscle and Fitness	Men's Fitness
19	Men's Fitness	Men's Fitness	Men's Health	Men's Health
20	Muscle and Fitness	Muscle and Fitness	Men's Fitness	Muscle and Fitness

^a For the purposes of this table, the data were carried out to as many decimal places as necessary to break ties.

^b Significantly better than Men's Health, Men's Fitness, and Muscle and Fitness.

^c Significantly better than Muscle and Fitness.

^d Significantly better than Men's Fitness and Muscle and Fitness.

^e Significantly better than Muscle and Fitness, Men's Health, and Men's Fitness.

^f Significantly better than Men's Health and Men's Fitness.

^g Significantly better than Men's Fitness, Men's Health, and Muscle and Fitness.

ences among magazines that were close to one another in the list were not statistically significant. In practical terms, this means that you can consider the magazines with scores in the upper half of the GOOD range to be better sources of nutrition information than the lowest-rated magazines in our survey, but you should not place too much importance on small differences in scores.

MAGAZINES RATED GOOD (89–80%)

Parents (tied for #1 in our survey)

Parents has consistently ranked very high in ACSH's surveys, usually earning a score of around 90% and placing among the top four magazines. This time, it scored 89%, placing it at the top of the GOOD range and tying it for first in the overall rankings. *Parents* also earned the highest score in the "recommendations" subcategory in the current survey, just as it did in 1997–99. *Parents* evidently takes pains to ensure that the advice that it gives to its readers is scientifically sound and well-supported by the information presented in its articles. The overall score that *Parents* received in the current survey was not significantly different from the 91% score that it received in 1997–99, according to ACSH's statistical analysis.

Several articles in *Parents* received rave reviews from our judges. The February 2001 article "Ten Facts You Must Know about Feeding Your Kids" did an excellent job of debunking common food myths and providing sound advice — much of it derived from interviews with well-qualified health professionals. The very thorough and informative June 2002 article "Food Poisoning" and the sensible December 2000 article on children's "Weird Eating Habits" also earned high marks.

Other articles in *Parents* did not score quite so high, however. The March 2002 article "The 20 Best Snacks for Kids" was ruined by its title, according to judge Dr. Irene Berman-Levine. Although the suggested snacks were nutritious and appealing, there is no scientific justification for preferring them over equally healthful alternatives. Our judges were especially concerned that no raw vegetables were included in the list. Should parents who offer their children raw vegetable snacks really be led to believe that these are not among the "best" snack choices? Another article that received relatively low marks was "Are You Raising a Junk Food Junkie" (March 2000), which "grossly exaggerated the health effects of dietary fat" and did not "distinguish at all between types of fat," according to judge Dr. Ruth Kava.

Ladies' Home Journal (tied for #1)

We were surprised and delighted by the high score (89%) earned by *Ladies' Home Journal*. This magazine ranked only 14th in ACSH's 1997–99 survey, but it jumped up to a tie for 1st place this year, thanks to a group of scientifically sound and well-written articles. The improvement in *Ladies' Home Journal*'s score (from 80 to 89%) was statistically significant, meaning that it probably reflects a real improvement in the quality of this magazine's coverage of nutrition.

Several articles in *Ladies' Home Journal* covered complex and difficult topics well. The March 2000 article “Why Am I Always Hungry?” was a good example. It did a fine job of explaining the many physiological, psychological, and environmental factors that can affect an individual's appetite. The ambitious November 2000 article “How to Choose the Best Medicine” presented accurate, well-researched descriptions of conventional and alternative approaches to the treatment of five common medical problems. The information about dietary supplements included in this article was particularly good; we were pleased to see that the author included appropriate cautions about inconsistent supplement quality and the possibility of drug-supplement interactions. *Ladies' Home Journal* also did a fine job with some simpler topics; for example, the straightforward June 2001 article “Slim Down Your Salad” earned high ratings from our judges.

Other *Ladies' Home Journal* articles could have been improved, however. For example, our judges criticized the January 2001 article “Eat Smarter” for overstating the benefits of soy. The July 2001 article “I Stopped Dieting — and Lost Weight” was disappointing because it relied too much on “case histories, not science,” according to judge Dr. Manfred Kroger.

Cooking Light (#3)

Cooking Light has been included in five ACSH surveys of nutrition coverage in popular magazines, and it has placed among the top-ranked magazines every time. In the current survey, *Cooking Light* ranked third, with a score of 88%; the difference between this score and its 1997–99 score of 90% was not statistically significant. *Cooking Light* ranked first in the “Accuracy” subcategory in the current survey, just as it did in 1997–99. This indicates that readers can count on *Cooking Light* as a source of well-documented, scientifically sound information.

Our judges were very pleased with the *Cooking Light* article

“Women on the Verge” (April 2000), which provided “responsible warnings about herbal menopause remedies,” in the words of judge Dr. Ruth Kava. The March 2000 article “Fast-Break Breakfasts,” which clearly explained both the importance of breakfast and how to make good breakfast choices, also received top marks from ACSH’s judges. The judges were particularly pleased that this article provided sufficient identifying information so that readers could track down the studies that were summarized and the experts who were quoted. We wish that more magazine articles would provide this type of information.

The judges were less pleased, though, with “Perfect Chemistry” (October 2000), which overstated the potential benefits of phytochemicals. They also criticized the March 2001 article “World-wide Cuisine” for recommending that diners minimize their intake of higher-fat fish, instead of providing a more balanced view of the pros and cons of including these types of fish in one’s diet.

Better Homes and Gardens (tied for #4)

Better Homes and Gardens has scored in either the GOOD or EXCELLENT range in every ACSH survey since 1990. This time, it earned a GOOD rating of 87%, tying it for fourth place in the survey. The difference between this magazine’s score (83%) in 1997–99 and its current score was not statistically significant.

ACSH’s judges gave very high marks to the September 2000 article “Teach Your Children Healthy,” which provided sound, practical advice to parents on how to cope with obesity in children. The February 2001 article “Getting Your Vitamins,” which provided a well-balanced, informative analysis of the rationale behind a new set of Recommended Dietary Allowances for antioxidant vitamins, also earned high scores.

The judges were less pleased, however, with the September 2000 article “Eating Like an Olympian.” Although the article included good information on some aspects of sports nutrition, the amount of fluid intake that it advised was excessive, especially for people participating in less intense forms of physical activity. The August 2001 article “Juicy Goodness” received some criticism from the judges for its over-enthusiastic promotion of drinking juice. In the words of judge Dr. Ruth Kava, “the article should have pointed out that too-aggressive consumption of juices can add too many calories” to a person’s diet.

Health (tied for #4)

Health magazine has scored in the GOOD range in four successive ACSH surveys; this time, its overall score of 87% tied it for fourth place. The difference between *Health*'s current score and its 1997–99 score of 84% was not statistically significant.

ACSH's judges gave top marks to several *Health* articles, such as "Diet Wisdom from the East" (Apr 2000), which judge Dr. Irene Berman-Levine described as a "perfect blend of human interest and epidemiology." Judge Dr. Ruth Kava was particularly impressed that this "article clearly indicated when studies were preliminary or test-tube; this is good to see." Another article that pleased the judges was "Sumptuous Soy" (August 2000), which presented accurate information about the potential health benefits of soy foods, along with appropriate cautions about the possible risks of excess intake of soy components in supplement form.

The judges were less impressed with other *Health* articles, however. The September 2002 article "Eat Your Colors," for example, was criticized by the judges for including unsubstantiated claims about phytochemicals. The December 2001 article "Red Meat You Can Eat," which discussed specialty beef products, also had important weaknesses. Some of the information it presented about grass feeding vs. grain feeding of beef was inaccurate, and the article's quality was also lowered by its title, which incorrectly suggests that red meat products other than those discussed in the article are not acceptable foods.

Good Housekeeping (tied for #6)

Good Housekeeping earned a GOOD rating of 86% this time, tying it for sixth in the overall rankings; the difference between its current score and its 1997–99 score of 90% was not statistically significant. *Good Housekeeping* earned the highest score of any magazine in our "presentation" subcategory. This means that its articles earned very high marks for objectivity, logical conclusions, and consistency of the headline with the article's content.

One of the best *Good Housekeeping* articles was "How Safe Is Your Dinner?" (March 2000), a well-balanced, scientifically sound explanation of food irradiation. The May 2001 article "Is Mad Cow Disease a Threat to You and Your Family" was much less successful, however. The judges noted that it overestimated the risks associated with eating beef while visiting the United Kingdom but underestimated

the potential risk that may be associated with consumption of animal-derived dietary supplements from overseas sources.

The majority of the *Good Housekeeping* articles included in this survey dealt with weight control, and their content was mostly reasonable. However, our judges thought that there was some room for improvement in several of them. For example, the February 2002 article “Twenty Questions That Can Change Your Weight” was marred by providing very specific information about the caloric content of foods with no indication of portion size. As judge Dr. Irene Berman-Levine noted, “you can’t just state that a piece of pizza has 250 calories and a Caesar salad has 650” without saying anything about portion size. The September 2002 article “Lose 75 Pounds...Really!” suffered from relying too much on a single individual’s experiences that may not be applicable to others, according to judge Dr. Ruth Kava. And the March 2001 article “The Best of the Fad Diets” made recommendations that were too specific and detailed for most people to follow, according to judge Dr. Manfred Kroger.

Consumer Reports (tied for #6)

Consumer Reports has scored in the GOOD or EXCELLENT range in every ACSH survey in which it has been included. This time, it earned a GOOD score of 86%, tying it for sixth place in the rankings. The difference between its current score and its 1997–99 score of 89% was not statistically significant.

ACSH’s judges gave very high marks to the September 2001 article “Milk: Got Proof?”, which provided a thorough, well-researched, clearly written analysis of claims made both in milk industry advertising and in statements made by anti-milk activists. Another *Consumer Reports* article that scored high was the July 2000 “Toast Toppers,” which provided accurate information about the nutrient content and health implications of butter, margarine, and other spreads.

However, our judges were less impressed with the January 2000 article “Designer Foods,” which reached alarmist conclusions about several types of foods currently in development without providing documentation to back up the concerns. The judges also gave relatively low marks to the March 2001 article “Pesticides, Food, and You” because it presented a “toxicity index” that had not been independently validated and because the article’s recommendations were unclear. As judge Dr. Irene Berman-Levine noted, “After you read this article, you would not be sure what you were supposed to do with the information.”

Runner's World (#8)

Runner's World scored in the GOOD range in ACSH's last two surveys, and it did so again this time, with an 8th place score of 85%. The difference between this score and *Runner's World's* previous score of 82% was not statistically significant.

Our judges were delighted with "Pyramid Scheme" (July 2002), an unusual article on the Food Guide Pyramid that managed to be both informative and funny. (We share the author's pain at learning that he is not allowed to count beer as part of the bread group.) "Coffee to Go" (January 2002), a well-balanced, well-researched article about both the pros and cons of caffeine, also earned high scores.

Our judges were less impressed with other *Runner's World* articles, however. The November 2000 article "Kitchen Sync," which gave extensive recommendations on how runners should coordinate their meals with their training schedules, was marred by a total lack of documentation to back up its complicated and very specific advice. The December 2002 article "Healthy Holidays," which consisted of a list of healthful, easy-to-prepare food gifts, was downrated because it made exaggerated claims about the health effects of antioxidants and soy products.

Redbook (tied for #9)

Redbook tied for ninth in our survey, with a GOOD score of 83%. In the 1997–99 survey, *Redbook* had received a FAIR score of 78%. The difference between these two scores was statistically significant. Thus, it is likely that the quality of the nutrition articles published in this magazine has truly improved since our last survey.

The November 2001 *Redbook* article "Second Thoughts on Soy," which presented a well-balanced, well-documented look at both the positive and negative aspects of this much-publicized food, received outstanding scores from ACSH's judges. Another excellent *Redbook* article was "Eight Diet Blunders," (April 2000), a "well-done article with good suggestions based on realistic information," according to judge Dr. Ruth Kava.

Several other *Redbook* articles, however, were marred by factual errors. The June 2002 article "This Is Your PMS Survival Kit" included inaccurate statements about the interaction between calcium and phosphoric acid and about the effects of soy phytoestrogens in the body. The March 2002 article "Reshape Your Body — For Keeps!" mistakenly

stated that carrots are a good source of vitamin C. And the March 2002 article “One Minute to Better Health” claimed that beta-carotene is a cancer fighter — an idea that has been discredited by a substantial body of scientific research.

Reader’s Digest (tied for #9)

Reader’s Digest has scored in the GOOD range in every survey conducted since ACSH adopted its current magazine rating methodology in 1990–92, and it continued to do so this time, tying for ninth place with a score of 83%. It also received a score of 83% in the 1997–99 survey.

ACSH’s judges gave high scores to some *Reader’s Digest* articles, including the March 2002 “What’s Your Craving? Feed It, Don’t Fight It” and the January 2002 weight control article “The 10% Solution.” However, the August 2000 article “Which Vitamins Do You Really Need? And How Much Is Too Much?” received mixed reviews. The judges thought that the article did a very good job of explaining the rationales behind the upper limits for vitamin intake. However, the article’s advice on whether or not to take certain supplements was contradictory and confusing. ACSH’s judges were disappointed with the November 2000 article “The Health Boosters,” which stated, inaccurately, that flavonoids are largely responsible for the protective effect of red wine against heart disease. In actuality, the scientific evidence for potential health benefits of flavonoids, though interesting, is preliminary and inconclusive, while the evidence that alcohol in wine protects against heart disease is extensive and compelling. This article also presented very specific recommendations for intakes of particular types of vegetables with no supporting documentation.

Prevention (tied for #11)

Prevention magazine earned a score of 82% in the current survey, tying it for eleventh place. Its GOOD rating in the current survey is consistent with its performance in three of the four other ACSH surveys conducted since 1990. In 1997–99, however, *Prevention* earned only a FAIR score of 72%. The difference between this magazine’s current score and its 1997–99 score was statistically significant.

Before discussing specific *Prevention* articles, we need to point out that several of the articles included in our survey were compilations of short items on unrelated topics. Articles of this type are referred to by

the title of the first item in the compilation, which may not reflect the content of the other items.

Our judges gave high marks to the October 2002 article “Why Good Eaters Get Fat,” which used attention-grabbing anecdotes to illustrate important principles of weight control. The judges were also impressed with the sound information and well-balanced advice presented in the title item in the compilation article “Eggs Every Day with No Worry” (September 2002). However, they lowered the score of the article as a whole because some of the other items were poorly documented.

Another compilation article that received mixed reviews was “Breakthrough for Health-Conscious Beef Lovers” (September 2001). Although the title item and an item on avoiding foods that might be contaminated with *Listeria* during pregnancy were fine, an item on foods that protect against sun damage was highly speculative. We hope that readers didn’t think that they could substitute the article’s “nutritional sunscreens” for real sunscreen. A third compilation article, “Seven Secrets of a Healthy Diet” (October 2000), was also a mixed bag. Accurate, well-documented items about research findings on coffee, tea, and chocolate were offset by a poorly documented item on salt and cataracts (“a new study from Australia” is not sufficient documentation) and by the impossible-to-prove claim that certain modifications of the Dietary Guidelines for Americans would lead to “optimum health.”

Woman’s Day (tied for #11)

Woman’s Day scored in the GOOD range in each of the last four ACSH surveys, and it did so again this time, with a score of 82%, tying it for eleventh place. The difference between *Woman’s Day*’s current score and its 1997–99 score of 84% was not statistically significant.

ACSH’s judges gave high marks to the July 2002 article “Stop Eating Your Anger,” which did a good job with both the psychological and nutritional aspects of the relationship between food and mood. A July 2000 article focusing on the simpler but no less important subject “Food Poisoning” was also very accurate and informative.

Other *Woman’s Day* articles did not fare so well. Our judges definitely did not love “The Only Diet You’ll Ever Love” (April 2001), which made excessively rigid dietary recommendations and included misinformation about the relationship between red meat intake and cancer. “Alternative Remedies Doctors Trust” (June 2001) failed to warn readers about the well-known quality control problems with dietary supplements and documented some sources inadequately. “Decoding Food

Labels” (May 2001) made an already-difficult subject worse by confusing weight with volume in its explanation of how the percentage of fat on a food label is determined. This article also implied, incorrectly, that for a diet to have no more than 30% of calories as fat, each food chosen should have no more than 30% of calories as fat; this important error could prompt readers to restrict their food choices unnecessarily.

Fitness (tied for #13)

Fitness magazine earned a GOOD score of 81%. This is an improvement over its performance in the last two ACSH surveys, in which it received scores in the FAIR range. The score that *Fitness* received in the current survey is significantly higher than its score of 75% in 1997–99, indicating that the improvement in the quality of its nutrition coverage is probably real.

Most of the articles in *Fitness* received mixed reviews from ACSH’s judges. For example, although the March 2001 article “What Your Fridge Says About You” offered some good advice about food choices, its advice about improving a vegetarian diet was confusing. In addition, the judges noted that the contents of an individual’s refrigerator may not reflect that person’s overall eating habits, especially if the person eats many meals away from home.

Several of the *Fitness* articles reviewed by our judges were actually compilations of short items, published under the title “Eat Smart Strategies” (2000–2001) or “Eat Smart” (2002). These articles were a mixture of trivial and important items, all of which were covered very briefly. Sometimes, the brevity was a problem, especially for serious, complex topics. It really isn’t possible to do justice to the topic “Should Your Kids Take Supplements?” in only 65 words, as was attempted in February 2001. Although the information presented was accurate as far as it went, crucial details (such as the importance of consulting the child’s physician before using supplements) were omitted. Similarly, a 50-word December 2001 item that reported that antioxidant compounds in apples and pears might ward off chronic bronchitis would have been vastly improved if there had been room to say that the most effective way to reduce the risk of this disease has nothing to do with food choices. Chronic bronchitis is almost always a result of cigarette smoking, and abstaining from the use of tobacco is the best preventative.

Glamour (tied for #13)

Glamour magazine scored in the GOOD range in the previous four ACSH surveys, and it did so again this time, with a score of 81%, tying it for 13th place. There was no statistically significant difference between this score and its 1997–99 score of 84%.

ACSH's judges were pleased with "All Your Burning Fat Questions Answered" (September 2001), a well-balanced and well-documented article on fat metabolism. Other *Glamour* articles, however, were less successful. For example, the August 2002 article "Twenty Genius Solutions to Our Big, Fat Weight Problem" included a mix of sound advice (watch out for hidden calories in beverages; be careful about portion size) and poorly documented ideas (being in debt makes people gain weight; healthy eating should be considered a form of patriotism). The article's subtitle, "Amazingly Fresh Ideas from the Country's Top Health Experts" was also a cause for concern. Although some of the people who supplied tips were indeed health experts, we doubt that Scott Adams, the creator of the Dilbert comic strip, qualifies.

Another *Glamour* article with a significant problem was "Why Being Too Thin Is Bad for Your Looks" (February 2002), which stated, incorrectly, that eating too little fat causes psoriasis. This error may have been overlooked because the article was based entirely on an interview with an "expert" (a nutritionist who works for a health resort). Unfortunately, "experts" are not always infallible; to ensure that articles don't contain inaccurate information, editors need to double-check scientific facts in *every* article, even those derived from expert interviews.

Self (tied for #15)

Self magazine received a GOOD score of 80% in the current survey, tying it for fifteenth place. In previous surveys, this magazine's scores have fluctuated, sometimes dropping into the FAIR range, and sometimes rising into the top half of the GOOD range. Its score in 1997–99 was 87%, significantly higher than its current score. Thus, the data indicate that the quality of the articles in *Self* has decreased.

Except for its overly optimistic title, the August 2000 article "The Perfect Health Diet" was one of *Self*'s best. This "well done and entertaining" article explained the Food Guide Pyramid in an understandable way and did a "great job" of adapting it to individuals' needs, according to judge Dr. Irene Berman-Levine.

As was the case with several other magazines, *Self* sometimes ran

into trouble when attempting to address serious topics within the context of a compilation article consisting of brief news items. For example, a 40-word item in the December 2000 “Eat-Right Flash” warned that raw oysters from the Gulf of Mexico have been associated with bacterial infections and advised people to eat only oysters caught in cooler waters. The item would have been greatly improved if there had been room to mention that the Food and Drug Administration and other authorities recommend that people at high risk for foodborne illness, such as elderly people and those with impaired immune systems, should *never* eat raw shellfish. A July 2000 compilation article called “Eat-Right Roadmap” also had its problems. It stated, incorrectly, that carotene reduces lung cancer risk, and it accepted a vegan diet as healthful without mentioning the need for supplementation with vitamin B₁₂ and other essential nutrients.

Shape (tied for #15)

Shape magazine earned a GOOD score of 80%, tying it for fifteenth place in this survey. In the two previous ACSH surveys in which it was included, *Shape* also scored in the GOOD range. Its score in 1997–99 was 86%; this was significantly better than *Shape*’s current score. Thus, it is likely that the quality of this magazine’s nutrition coverage has truly decreased in recent years.

Shape did a good job with “Famous Food Fibs” (August 2000), which used a quiz format to teach readers some practical but possibly surprising facts about nutrition (light olive oil is not lower in calories than regular; frozen vegetables may be more nutritious than fresh; brown-colored breads are not necessarily high in fiber, etc.). The article “Need More C and E?” (December 2000), which questioned the validity of a new set of Recommended Dietary Allowances for antioxidant vitamins, was less successful, however. Although the article accurately presented the views of those who disagreed with the new recommendations, it lacked the balance that could have been supplied by including the opinions of those who supported them.

As was the case with several other magazines, *Shape* had some problems with articles that consisted of compilations of small news items. The March 2002 “Eat Right” article made three dietary recommendations on the basis of scientific information that was far too preliminary to warrant such advice, and the July 2001 “Eat Right” article exaggerated the diuretic effects of caffeine and alcohol. On the other hand, the September 2001 “Eat Right” article was very accurate and received high marks from the judges.

MAGAZINES RATED FAIR (79–70%)

Cosmopolitan (#17)

Cosmopolitan received a FAIR score of 78%, placing it seventeenth in this survey. In previous ACSH surveys, *Cosmopolitan* has scored in either the FAIR or POOR range. Its current score is not significantly different from its score of 79% in 1997–99.

The February 2002 *Cosmopolitan* article “Diet Tips You’ve Never Heard” received relatively high scores from ACSH’s judges, although the judges questioned whether there is really adequate evidence to support the contention that it’s more effective to work out before breakfast than afterward. However, a November 2001 article on bloating called “Feeling Puff? Lose 5 lbs. Of Pooch Easily” received quite low scores because many of its recommendations were poorly supported by the scientific evidence. Also, this article, which suggested taking vitamin B₆ in doses of 50 to 100 mg/day, failed to tell readers that doses not much above this range can cause neurological side effects.

Several compilation-type articles in *Cosmopolitan* were a mixed bag. For example, one item in the October 2000 “Cosmo Diet” did a good job of summarizing the basics on omega-3 fatty acids, with appropriate precautions about the possible downside of taking them in supplement form. Another item in the same column, however, tried to debunk the “myth” that exercising increases your appetite by saying that “the calories you burn working out more than make up for the additional ones you might take in.” In reality, whether this is true depends on how much you exercise and how much you eat. In its compilations, *Cosmopolitan* often includes short quotes in which readers share their diet tips or food-related experiences. While these may be entertaining and occasionally informative, we would feel better about them if the editors included some type of cautionary statement whenever the suggested diets (such as an all-fruit diet or an all-carrot diet, both mentioned in the October 2000 “Cosmo Diet” article) are downright unhealthful.

Men’s Health (#18)

Men’s Health earned a FAIR score of 71%, placing it eighteenth in this survey. On the three previous occasions when *Men’s Health* has been judged, it twice earned a GOOD score and once a FAIR score. Its score in 1997–99 was 82%. This magazine’s score in the current survey

is significantly lower, indicating that there has probably been a true drop in the quality of this magazine's articles about nutrition.

The August 2000 *Men's Health* article "Be Half the Man You Used to Be" was a goldmine of useful information for calorie counters. It listed very practical ways in which foods of high caloric density could be replaced with larger amounts of foods of lower caloric density. The article made a good point — with plenty of realistic examples.

Most of the other articles that we judged from *Men's Health*, however, had serious problems. The September 2001 article "Fix It with Food" made the mistake of overascribing symptoms to nutritional deficiencies. For example, while bleeding gums can be a result of vitamin C deficiency, as the article points out, other causes are far more likely, especially in modern societies, where deficiencies of this vitamin are rare. Instead of eating more grapefruit, as the article suggests, a man with bleeding gums would be better advised to see a dentist.

Several *Men's Health* articles greatly exaggerated the significance of tenuous — or in some cases, nonexistent — scientific links between specific foods or food ingredients and health effects. Contrary to the March 2001 article "Food for Thought," there is no conclusive evidence that eating tuna will lower your risk of Alzheimer's disease, nor that having a high-fat snack with your coffee will enhance your mental performance by increasing your absorption of caffeine. And we cannot fathom why anyone would say (as did the author of the April 2000 article "Look What We Cooked Up"), that baked potatoes are the best of all possible foods for improving male sexual performance. Nor is there good scientific evidence for the claims (in the same article) that drinking large quantities of iced green tea will promote weight loss or that the trace amounts of flavonoids in grape jelly will enhance heart health. In the words of ACSH judge Dr. Manfred Kroger, "This is the kind of trashy reporting that spreads food illiteracy and nutrition myth-information."

MAGAZINES RATED POOR (69% OR LOWER)

Men's Fitness (tied for #19)

Men's Fitness, which is making its first appearance in an ACSH nutrition survey, earned a POOR score of 68%, tying it for nineteenth (and last) place in the ratings.

One of the most regrettable articles in *Men's Fitness* was the February 2002 "Genie in a Bottle." This article purported to present a

balanced look at fat-burning dietary supplements such as ephedra, but it ended up minimizing their risks to the point where it was actually legitimizing, if not promoting, possibly quite dangerous products. The important topic of drug-supplement interactions was inadequately covered in this article, and the equally crucial issue of inconsistent supplement quality (and the unpredictable dose levels that may result) was totally ignored. Our judges gave this article very low scores.

Another article that received low scores was “Get the Whole-Food Habit” (June 2002). This article was based largely on interviews with several nutrition-book authors, and it accepted their views as gospel even though some of their opinions are not supported by sound science. For example, the statement, quoted from one of the interviewed “experts,” that “if your ancestors didn’t eat it 5,000 years ago, you probably shouldn’t eat it either” is simply one person’s opinion; it’s not science. (Your ancestors didn’t have indoor plumbing, either; should you therefore eschew it?) It was also regrettable that when the article pointed out that many health problems are the result of “lifestyle mistakes” (a claim that actually *does* have a sound scientific basis), it ignored the biggest lifestyle mistake of all — cigarette smoking. More health-problem-related deaths in the past century resulted from smoking than from any other preventable cause; to omit this information is to give readers a distorted picture of how their personal choices influence their health.

On the other hand, *Men’s Fitness* did a good job with articles that focused more narrowly on the culinary and nutritional properties of specific foods. Both the May 2002 article “Exotic Fruit” and the June 2000 article “Power Grains” were well written, well documented, and interesting. If *Men’s Fitness* can produce more articles of this quality, its score may improve substantially in the next ACSH survey.

Muscle and Fitness (tied for #19)

Muscle and Fitness, which scored in the FAIR range in the last two ACSH surveys, dropped to POOR this time. Its score of 68% tied it for nineteenth (and last) place. In 1997–99, this magazine received a score of 73%; its current score is significantly lower, indicating a decrease in the quality of its nutrition articles.

Some articles in *Muscle and Fitness* provide bodybuilders and other athletes with sound nutrition advice, but others advocate courses of action that are speculative at best and dangerous at worst.

The March 2000 *Muscle and Fitness* article “No-Attrition Nutrition” gave sound advice on how to maintain a healthful diet and

lifestyle. The August 2001 article “Getting in Your Licks” did a good job of explaining the nutritional facts about frozen desserts. The May 2002 article “Muscle-Up Your Grocery Cart” provided reasonable guidance about how to choose healthful convenience foods. All of these articles received high scores from ACSH’s judges.

At the other end of the quality spectrum, however, were articles such as the March 2002 quiz-format article “Are You a Smart-Mouth,” which included the quiz question “What is the maximum recommended daily intake of the fat-burning supplement ephedra and its alkaloids?” but never mentioned the serious health risks that have been associated with the use of this supplement. (We at ACSH would argue that the “maximum recommended daily intake” is zero, but that was not one of the choices.) Another article with serious problems was “Leucine for Muscle Defense” (May 2000), which advocated supplementation with leucine on the basis of inadequate evidence. The article also discussed iron supplementation without providing sufficient precautionary statements, such as a warning that people with the disease hemochromatosis should never take iron supplements. A third article, the February 2000 “21st Century Supplements” also advocated the use of several types of supplements without adequate justification. In the words of judge Dr. Irene Berman-Levine, “The headline should have been ‘Futuristic Hopes for Supplements.’ The problem is: the writer believes we are there *now*.”

We hope that in the future, *Muscle and Fitness* will provide better service to its readers by taking the same science-based approach in its dietary supplement articles that it does in at least some of its food articles.

HOW THE MAGAZINES STACKED UP BY TARGET AUDIENCE

Our statistical analysis indicated that, overall, the quality of the nutrition articles in magazines in the “consumer” and “home” categories was significantly better than that in the “women” category. There was too much variability in the “health” category to allow any conclusions to be reached.

We did not predefine a category of “men’s” magazines or include such a category in our statistical analysis. However, simple inspection of the data indicates that three of the four magazines in our survey that received FAIR or POOR ratings have largely male readerships. None of the magazines rated GOOD is aimed primarily at men. Thus, it appears that there may be special cause for concern about the quality of nutrition articles in magazines designed for male readers.

For more general comments on the surveyed magazines, see Table 3.

Table 3. GENERAL COMMENTS

Magazine (listed by target audience group)	Comments
<i>Home</i>	
<i>Cooking Light</i>	Did a fine job of providing accurate scientific information, but a few of its recommendations were not fully justified.
<i>Better Homes and Gardens</i>	Sound, practical advice, but a few errors were noted in articles dealing with beverages.
<i>Good Housekeeping</i>	Objective, logical reporting, but weaknesses were found in some weight control articles.
<i>Consumer</i>	
<i>Parents</i>	Tied for first place. Provides good advice, based on scientifically sound information.
<i>Consumer Reports</i>	Most articles provide accurate information, but a few seem alarmist or unclear in their recommendations.
<i>Reader's Digest</i>	Generally good articles but with a few instances of factual errors and inadequate documentation.
<i>Women</i>	
<i>Ladies' Home Journal</i>	Tied for first place, with impressive improvement over its performance in past surveys.
<i>Redbook</i>	Articles were mostly well balanced and well documented, but some were marred by factual errors.
<i>Woman's Day</i>	Did a generally good job with a variety of topics, but our judges found some factual errors and misinterpretations.
<i>Glamour</i>	Articles were mostly acceptable, but some poorly supported or inadequately documented ideas were included.
<i>Self</i>	Full-length articles were better than articles consisting of compilations of news items.
<i>Cosmopolitan</i>	Not as bad as it used to be, but some articles include inaccurate information or omit precautionary statements.

(continued on page 26)

Table 3. GENERAL COMMENTS (*continued*)

Magazine (listed by target audience group)	Comments
<i>Health</i>	
<i>Health</i>	Some articles received top marks, but others included some poorly substantiated claims.
<i>Runner's World</i>	Some articles were well researched and well balanced, but others included questionable claims.
<i>Prevention</i>	Compilation articles included a mixture of sound information and inadequately supported statements.
<i>Fitness</i>	Most articles received mixed reviews; items in compilations were often too short to cover topics adequately.
<i>Shape</i>	A mixture of very good and less successful articles; several problems noted in compilation articles.
<i>Men's Health</i>	The judges noticed a tendency to exaggerate the significance of tenuous scientific links between foods and health effects.
<i>Men's Fitness</i>	Did not score well in its first appearance in ACSH's survey. Needs more attention to sound science and to supplement safety issues.
<i>Muscle and Fitness</i>	Does a good job with food topics, but articles on dietary supplements range from speculative to dangerous.

ACSH'S CONCLUSIONS — AND OUR ADVICE TO MAGAZINE READERS

The quality of nutrition reporting in popular magazines at the beginning of the twenty-first century is much better than it was in the 1980s and early 1990s. Most major magazines, with the possible exception of those aimed at male readers, provide generally sound nutrition information. The types of grossly unhealthful fad diets and unwarranted claims for dietary supplements that were once rampant in popular magazines are now much less common than they used to be.

Nevertheless, readers should be cautious. Not everything that appears in print is scientifically sound or even safe. Moreover, even if every fact mentioned in a magazine article is correct, it may be impossible to address all aspects of a complex topic in 500, 1000, or even

2000 words. The shorter the article, the more aware readers should be of the possibility that important information has been omitted.

We feel that it is no accident that many articles consisting of compilations of short news items were strongly criticized by ACSH's judges. Some topics — particularly those with important health or safety implications — simply cannot be covered in a 50- or 100-word news item, and the omission of crucial facts can leave readers misinformed. We think that magazine editors would be wise to limit compilation articles to relatively simple, less serious topics or to allow items to run longer than usual when necessary in order to cover a topic adequately.

Each time that ACSH conducts one of these surveys, we notice a different pattern of errors in the magazine articles that we review. In the 1980s, scientifically unsound weight-loss diets abounded, but this is no longer the case. During the early 1990s, uncritical, one-sided endorsements of dietary supplements were common, but most of today's writers and editors realize that supplements can have risks and side effects, as well as potential benefits. In the current survey, we most often noticed errors in articles that discussed relatively sophisticated topics, such as the health effects of dietary fat, the body's need for water (and the effects of diuretics such as caffeine and alcohol), or the relationship between carotene and cancer risk. Complex topics such as these pose a particular challenge for writers and editors; it would be worthwhile for editors to have such articles reviewed for accuracy by experts in nutrition before they are published.

Before you adopt any new dietary practices advocated in magazine articles, it is a good idea to do the following:

Consider the source, and then consider the source's sources. What we mean here is to look first at the magazine in which the article appeared. Was it rated high or low in our survey? Second, look at the sources quoted or mentioned in the article. Did the information come from a highly respected source, such as the Food and Drug Administration, the American Heart Association, or the American Dietetic Association, or did it come from a diet book author or a supplement manufacturer? Or is it unclear where the information originated? If you cannot determine the source of information by reading the article, beware.

Be aware that there can be a mix of articles of different quality within the same magazine. Even the magazines with the highest scores in ACSH's surveys included some articles with noticeable weaknesses. And even the lowest-scoring magazines included a few very good, well-researched articles. You may find ACSH's accuracy subcategory ratings

to be helpful in determining whether a particular magazine has a pattern of publishing articles with correct scientific information.

Familiarize yourself with the basics of nutrition. A good place to start is with the federal government's *Dietary Guidelines for Americans* booklet, available online at www.usda.gov/cnpp/DietGd.pdf. Once you know the basics, you'll find it easier to distinguish well-accepted ideas from outlandish ones. Readers who are already familiar with the basics of nutrition may also wish to consult the reports on Dietary Reference Intakes for various nutrients published by the U.S. National Academy of Sciences. These reports are available online at www.nap.edu.

When it comes to dietary supplements, be extremely cautious. Although efforts are being made to address the safety and quality problems associated with some dietary supplement products, it is important to be aware that dietary supplements need not be proven safe or effective before they are sold. Their quality may also be questionable; variations in the amounts of active ingredients present in some products have been reported, and contamination is also possible. Some dietary supplements may have harmful side effects, and some may interact with medications. Before taking any supplements (other than vitamins and minerals at doses of no more than 100% of the Daily Value), it's a good idea to check it out with your health care provider.

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² A summary of those older findings, prepared by William D. Evers, Ph.D., R.D., can be found online at <http://www.acsh.org/publications/reports/surveysum.html>

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